

ICO310

Robust DIN-rail Fanless Embedded System with Intel® Celeron® Processor N3060/N3160, 2 COM, 4 USB, 2 GbE LAN (1 PoE PD), DIO and RTC

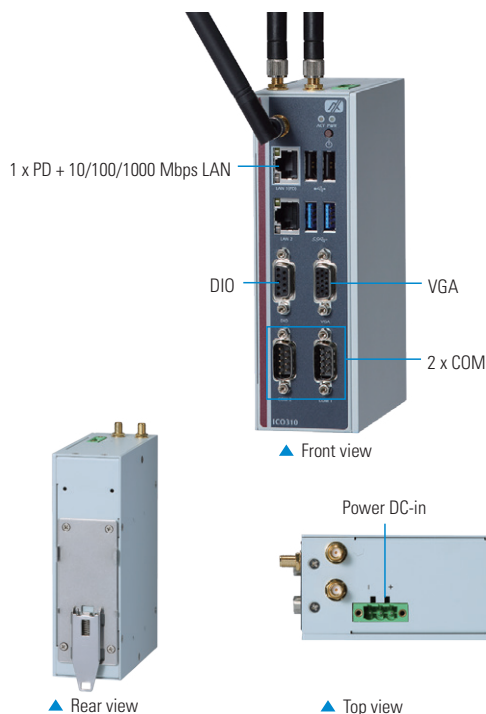
Features

- Cost-effective with fanless and cableless design
- Intel® Celeron® processor N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core)
- 2 RS-232/422/485 ports
- 4 USB ports
- 2 isolated 10/100/1000 Mbps Ethernet ports
- 1 PoE PD compliant with IEEE 802.3at standard through LAN 1
- 1 DIO port
- 2 PCI Express Mini Card slots (3G/GPRS & Wi-Fi)
- 1 mSATA & SATA SSD (or HDD)
- 12 to 24 VDC wide range power input
- AMS.AXView intelligent remote monitoring software for IIoT



Specifications

Standard Color	Silver																		
Construction	Extruded aluminum and heavy-duty steel, IP40																		
CPU	Intel® Celeron® processor N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core)																		
System Board	SBC87887																		
System Memory	1 x DDR3L-1600 SO-DIMM, up to 8GB																		
BIOS	AMI UEFI BIOS																		
System I/O Outlet	<table border="0"> <tr> <td>Serial</td> <td>2 x RS-232/422/485 with DB9 connectors Interface select by BIOS Supports Auto Flow Control in RS-485 mode</td> </tr> <tr> <td>USB</td> <td>2 x USB 3.0 2 x USB 2.0</td> </tr> <tr> <td>RTC</td> <td>Battery onboard</td> </tr> <tr> <td>Storage</td> <td>1 x mSATA 1 x SATA SSD (or HDD)</td> </tr> <tr> <td>LAN</td> <td>2 x 10/100/1000 Mbps Ethernet (Intel® i211AT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3060-PD-DC, ICO310-N3160-PD-DC)</td> </tr> <tr> <td>Power Input</td> <td>DC terminal block: 12 to 24V DC-In PoE: IEEE 802.3at</td> </tr> <tr> <td>Display</td> <td>VGA (DB15 connector)</td> </tr> <tr> <td>Wireless</td> <td>1 x Full-size PCI Express Mini Card slot 1 x Full-size PCI Express Mini Card slot with mSATA 1 x SIM card socket 3 x Antenna</td> </tr> <tr> <td>DIO</td> <td>1 x DIO - DB9 8-bit programming connector - The voltage of TTL is 5V - Without isolation function - The programming is as follow: 1. I/O sink current is 8 to 10mA (output drive current ±50 mA) 2. Input/output can programming</td> </tr> </table>	Serial	2 x RS-232/422/485 with DB9 connectors Interface select by BIOS Supports Auto Flow Control in RS-485 mode	USB	2 x USB 3.0 2 x USB 2.0	RTC	Battery onboard	Storage	1 x mSATA 1 x SATA SSD (or HDD)	LAN	2 x 10/100/1000 Mbps Ethernet (Intel® i211AT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3060-PD-DC, ICO310-N3160-PD-DC)	Power Input	DC terminal block: 12 to 24V DC-In PoE: IEEE 802.3at	Display	VGA (DB15 connector)	Wireless	1 x Full-size PCI Express Mini Card slot 1 x Full-size PCI Express Mini Card slot with mSATA 1 x SIM card socket 3 x Antenna	DIO	1 x DIO - DB9 8-bit programming connector - The voltage of TTL is 5V - Without isolation function - The programming is as follow: 1. I/O sink current is 8 to 10mA (output drive current ±50 mA) 2. Input/output can programming
Serial	2 x RS-232/422/485 with DB9 connectors Interface select by BIOS Supports Auto Flow Control in RS-485 mode																		
USB	2 x USB 3.0 2 x USB 2.0																		
RTC	Battery onboard																		
Storage	1 x mSATA 1 x SATA SSD (or HDD)																		
LAN	2 x 10/100/1000 Mbps Ethernet (Intel® i211AT) 1 x PoE PD compliant with IEEE 802.3at standard through LAN 1 (ICO310-N3060-PD-DC, ICO310-N3160-PD-DC)																		
Power Input	DC terminal block: 12 to 24V DC-In PoE: IEEE 802.3at																		
Display	VGA (DB15 connector)																		
Wireless	1 x Full-size PCI Express Mini Card slot 1 x Full-size PCI Express Mini Card slot with mSATA 1 x SIM card socket 3 x Antenna																		
DIO	1 x DIO - DB9 8-bit programming connector - The voltage of TTL is 5V - Without isolation function - The programming is as follow: 1. I/O sink current is 8 to 10mA (output drive current ±50 mA) 2. Input/output can programming																		
Watchdog Timer	255 levels, 1 to 255 sec.																		
System Indicator	Power, active, COM (TX/RX)																		



Power Supply	Power input range: 12 to 24 VDC Power input rating: 12 to 24 VDC, 2.09 to 1.09A Power protection: DC version OVP, reverse protection
Operating Temperature	-20°C to +60°C (-4°F to +140°F) *The frequency of CPU will down when system operating temperature over +55°C (ICO310-N3060, ICO310-N3060-PD, ICO310-N3160) or over +50°C (ICO310-N3160-PD)
Humidity	10% to 95%
Vibration Endurance	2 Gms (5 to 500Hz, amplitude 0.35 mm; operation/storage/transport)
Weight (net/gross)	1.0 kg (2.2 lb)/1.50 kg (3.3 lb)
Certifications	CE, FCC
Dimensions	48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)
Mounting	DIN-rail, wall mount
OS Support	Windows® 10 IoT, Linux
Software Support	AMS.AXView

* mSATA and wireless can be either one.

Ordering Information

Standard

IC0310-N3060-PB-DC (P/N: E22C310106)	Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3060 (1.6GHz/DC), 2 COM, 2 LAN, and DIO (-20°C to +60°C with power button)
IC0310-N3160-PB-DC (P/N: E22C310104)	Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6GHz/QC), 2 COM, 2 LAN, and DIO (-20°C to +60°C with power button)
IC0310-N3160-PB-PD-DC (P/N: E22C310105)	Robust DIN-rail fanless embedded system with Intel® Celeron® processor N3160 (1.6GHz/QC), 2 COM, 2 LAN, PoE PD, and DIO (-20°C to +60°C with power button)

Optional

2.5" SATA SSD or HDD (with W.T. SSD or HDD)	
mSATA	16GB to 512GB (with W.T. mSATA)
DDR3L SO-DIMM	2GB to 8GB (with W.T. memory)
8812C3000A0E	IC0300/310/320 wall mount bracket kit
8816N3234A0E	3G/GPS UC20G kit for tBOX (3G ANT) (E)
8816N3235A0E	3G/GPS UC20G kit for tBOX (3G/GPS ANT) (E)
8812C3003A0E	SparkLAN WPEA-152GN Wi-Fi kit ICO SFP (E)
8812C3004A0E	SparkLAN WPEA-251N Wi-Fi kit ICO SFP (E)
82606200390E	LTE module SIERRA MC7304 kit for EU SFP
826N3230060E	tBOX series Bointec CPE902A Wi-Fi SFP

* Specifications and certifications may vary based on different requirements.

Dimensions

